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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,999	11/16/2001	Giovanni Traverso	Q67311	7985
7590 07/11/2005 SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3213			EXAMINER WONG, BLANCHE	
			ART UNIT 2667	PAPER NUMBER
DATE MAILED: 07/11/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<p><b>Application No.</b></p> <p>09/987,999</p>	<p><b>Applicant(s)</b></p> <p>TRAVERSO ET AL.</p>	
	<p><b>Examiner</b></p> <p>Blanche Wong</p>	<p><b>Art Unit</b></p> <p>2667</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br/> Paper No(s)/Mail Date <u>Oct'04</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/> Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|--|---|

### **DETAILED ACTION**

1. With regard to cl. 6, Examiner suggests replacing – said frames (TRM1, TRM2) – in ln. 3 and – the frames (TRM1, TRM2) – in ln. 4, with “said data frames (TRM1, TRM2)” and “the data frames (TRM1, TRM2)” respectively, to be consistent with the data frames in cl. 1, ln. 6.
2. With regard to cl. 6, Examiner suggests replacing – in band signaling – with “in-band signaling”, in order to increase clarity.

### ***Drawings***

3. The drawings are objected to because Fig. 1,2,4 needs more descriptive labeling.

Examiner suggests replacing abbreviations that are not obvious to a person of ordinary skill in the art, such as FST,EMP,EM1,EM2, DP,PD, TRM,TRU,CB1,CB2,IT, etc. but obviously important to the invention, in order to increase legibility.

4. The drawings are objected to because in amended drawings, labels Fig. 3 and Fig. 4 are handwritten.
5. The drawings are objected to because amended drawings need to be labeled as replacement sheets.
6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the TP,HP,LP (cl. 6); MSA (c.. 9); MS (cl. 10) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claims 7-10** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 7 recites the limitation "the switch matrix (CM)" in ln. 1-2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 1 and 2** are rejected under 35 U.S.C. 102(b) as being clearly anticipated by limura et al. (U.S. Pat No. 5,278,836).

With regard to cl. 1, limura discloses (see Fig. 1) at least a central board (a line control circuit 8 in combination with a CPU 10); and one or more I/O peripheral boards (line correspondence unit 61-68) for exchanging data frames and control bytes. limura further discloses data frames containing said control bytes (frame has control field, col. 4, ln. 64). limura also discloses data frames that are bitwise converted (a line correspondence unit 61-68 that includes 8-bit receiving shift register 64 for converting

serial receiving data into parallel receiving data, col. 6, ln. 59-60) before being exchanged between the peripheral boards and the central board.

With regard to cl. 2, limura discloses the interface system according to cl. 1. It is inherent that there is some internal clocking within the CPU of the Multichannel Communication Processing System 1 (see Multiplex Transmitting/Receiving Line in Fig. 5) or to include a local clock within the Multichannel Communication Processing System 1, in order to implement a clock control circuit of a Multiplex Control Circuit 40 as taught in limura.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 3-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over limura.

With regard to cl. 3-5, limura further discloses a frame that has frame alignment in cl. 3 (a frame check sequence, col. 4, ln. 65), synchronism in cl. 4 (flag sequences, col. 4, ln. 65-66), and monitoring the connection and switching of the active board (an address, col. 4, ln. 64). However, limura fails to explicitly show bytes of frame alignment, synchronism bytes, and bytes for monitoring the connection and switching of the active board.

Although frames are 8-bits and have bits of controls and signaling, frames are not limited to bit-size controls and signaling. Super-frames which are made up of frames, have byte-size controls and signaling, including frame alignment, synchronism, and/or connection and switching (addressing).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art that to allow for super-frames and byte-size controls and signaling, and to include bytes of frame alignment, synchronism bytes, and bytes for monitoring the connection and switching of the active board. The suggestion/motivation for doing so would have been to create an expansive system where communication is greater than a frame. (limura's objective is to provide a multichannel communication processing system capable of efficiently controlling communication protocol processing, col. 1, ln. 66-col. 2, ln. 1). Therefore, it would have been obvious to combine byte-size controls and signaling, with limura for the benefit of bytes of frame alignment, synchronism bytes, and bytes for monitoring the connection and switching of the active board to obtain the invention as specified in cl. 3-5.

14. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over limura in view of Fedders et al. (U.S. Pat No. 6,603,776).

With regard to cl. 6, Jordan discloses an interface system according to cl. 1. However, Jordan fails to explicitly show a mapping function.

In an analogous art, Fedders discloses mapping (col. 3, ln. 49) for efficient conversion.

Art Unit: 2667

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have mapping. The suggestion/motivation for doing so would have been efficient conversion. Fedders, col. 1, ln. 49. Therefore, it would have been obvious to combine Fedders with Jordan for the benefit of mapping to obtain the invention as specified in cl. 6.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW

June 25, 2005

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2667 7/8/05